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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/760,961

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Scott E. Hrastar

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07/14/2004

Scientific-Atlanta, Inc.
Intellectual Property Dept. MS 4.3.518
5030 Sugarloaf Parkway
Lawrenceville, GA 30044

EXAMINER

TON, ANTHONY T

ART UNIT

PAPER NUMBER

2661

6

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,961

Applicant(s)

HRASTAR ET AL.

Examiner

Anthony T Ton

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4 and 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

a) Attorney docket numbers “1263.4698”, “1263.4699”, “1263.4701”, “1263.4702”, “1263.4704”, “1263.4705”, “1263.4706”, and “1263.04697” in page 1 lines 12, 15, 17, 20, 23, 25, 28, and 31, respectively are improper.

Examiner suggests replacing these Attorney docket numbers by appropriate patent applications Serial No., and if the applications have been issued, please include their corresponding patents No.

b) Attorney docket numbers “1263.04700” and “1263.04703” in page 2 lines 1 and 5, respectively are improper.

Examiner suggests replacing these Attorney docket numbers by appropriate patent applications Serial No., and if the applications have been issued, please include their corresponding patents No.

c) Patent Application Ser. No. “08/738,6681” in page 3 line 20 is improper since there is no any such a serial No.

Examiner suggests changing this Serial No. to an appropriate Serial No.

d) Term “Environment,, Koperda, et” in page 3 line 21 is improper.

Examiner suggests changing this term to “**Environment, Koperda et**”.

e) Term “**Moura**, et al.” in page 4 lines 7 and 8 is improper.

Examiner suggests changing this term to “**Moura et al.**”.

f) Term “**1994, In this system**” in page 4 line 10 is improper.

Examiner suggests changing this term to "**1994. In this system**".

g) Term "**the PC's**" in page 5 line 27 is improper.

Examiner suggests changing this term to "**the PCs**".

h) Term "**router 100**" in page 6 line 24 is improper. According to Figs. 1, 2 and 9, the reference 100 should be changed to 101 for such a router.

Examiner suggests changing this term to "**router 101**".

i) Term "**data field 301**" in page 8 line 11 is improper. According to Fig.3, it should be data field 321.

Examiner suggests changing this term to "**data field 321**".

j) Term "**data 321**" in page 8 line 12 is improper. According to Fig.3, it should be an IP datagram 301.

Examiner suggests changing this term to "**IP datagram 301**".

k) Term "**defines**" in page 8 line 20 is improper since it does not comply with its subject:
The IP addressing and routing architecture of the cable data network.

Examiner suggests changing this term to "**define**".

l) Term "**FIG. 10**" in page 22 line 24 is improper since it should be Figure 11.

Examiner suggests changing this term to "**FIG. 11**".

n) Term "**manager 937**" in page 24 lines 24 and 26 is improper. According to Fig. 9, it should be a manager 102.

Examiner suggests changing this term to "**manager 102**".

o) Term "**function 105**" in page 25 line 4 is improper. According to Fig. 10, it should be a hash function 1005.

Examiner suggests changing this term to “**function 1005**”.

q) Term “**SNMB**” in page 27 line 28 is misspelling of the words (SNMP) simple network management protocol as described in page 26 lines 17-18.

Examiner suggests changing this term to “**SNMP**”.

r) Term “**FIGs. 11 and 13**” in page 35 line 16 is improper since there is no Fig.13 existed in the Drawings.

Examiner suggests changing this term to “**FIG. 11**”.

Appropriate correction is required.

Claim Objections

2. **Claims 1, 2, 11, 12, 19, 21 and 22** are objected to because of the following informalities:

a) **In Claims 1, 2, 11 and 12:** Term “**an RF**” is improper; in claim 1: in line 1 (two places); in claims 2 and 12: in line 2; and in claim 12: in lines 1 and 2.

Examiner suggests changing this term to “**a RF**”.

b) **In Claims 11, 19 and 22:** Term “**(Dynamic Host Configuration Protocol)**” is redundant since this term is already recited in claim 8 for its abbreviation DHCP.

Examiner suggests deleting this term from these claims.

c) **In Claim 21:** Term “**(Public Switched Telephone Network)**” is redundant since this term is already recited in claim 10 for its abbreviation PSTN.

Examiner suggests deleting this term from this claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 3-5 and 14-16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 14 recite the limitation "the RF **cable** connection" in **line 2**. Is this connection the same as "RF connection" recited in the previous claims 1 and 2. There is insufficient antecedent basis for this limitation in this claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 2, 6, 9, 12, 13, 17 and 20** are rejected under 35 U.S.C. 102(e) as being anticipated by **Laubach et al.** (US Patent No. **6,028,860**) hereinafter referred to as Laubach (provided by **IDS #4**).

a) **In Regarding to Claim 1: Laubach disclosed** a method employed in a RF modem in dynamic assignment of a link address on a RF connection (*see Fig.14; col.3 line 51- col.4 line 22*

and see Claims 1 and 7), the RF connection connecting the RF modem with a head end (see Fig.1: 104), the link address being used by the head end for forwarding of information from the head end through the RF modem to at least one host that is connected to the RF modem (see Fig.1: wherein the Subscriber Terminal Unit 106 is considered as a RF modem; and see col.3 lines 24-27: common RF channel), the method comprising the steps performed in the RF modem of:

receiving the link address, the link address being assigned by the head end (see abstract and col.2 lines 53-66);

selecting a message that is carried on the RF connection based upon the link address (see abstract: subscriber terminal unit demodulates the received RF signal and processes the cells for use in a computer (hence selecting a message), and see col.3 lines 7-19 for more details); and

forwarding the selected message to the at least one host (see col.4 lines 12-14; Fig.17; and col.7 lines 41-54).

b) In Regarding to Claim 2: Laubach further disclosed wherein the link address comprises an identifier for a frequency in the RF connection, the message being carried on the RF connection in a RF channel associated with the frequency (*see Fig.3 and col.8 lines 25-35: RF signals containing ATM cells, VPIs*).

c) In Regarding to Claim 6: Laubach further disclosed wherein the link address further comprises an identifier that is matched with information in a header of the message before the message is forwarded to the at least one host (*see Fig.14: DSID*).

d) **In Regarding to Claim 9: Laubach further disclosed** wherein the link address is received over a bidirectional link during the receiving step (*see col.2 lines 52-66: full duplex; and col.10 lines 9-34: bidirectional exchange*).

e) **In Regarding to Claims 12, 13, 17 and 20:** these claims are rejected for the same reasons as Claims 1, 2, 6 and 9, respectively because the claimed subject matters of the method in Claims 1, 2, 6 and 9 are the same as that of claims 12, 13, 17 and 20.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 3-5 and 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Laubach et al.** (US Patent No. 6,028,860) in view of **Gurusami et al.** (US Patent No. 6,031,846) hereinafter referred to as Gurusami.

a) **In Regarding to Claim 3: Laubach disclosed** all aspects of this claim as set forth in claims 1 and 2, and **Laubach further disclosed** wherein the link address for **upstream** further comprises an identifier for a plurality of time periods (*time slots*), the message being carried on the RF cable connection in the RF channel during at least one time period of the plurality of time periods (*see Figs.3 and 16; and col.3 lines 51-59*).

However, Laubach failed to explicitly disclose such a link address for **downstream** further comprises an identifier for a plurality of time periods, the message being carried on the

RF cable connection in the RF channel during at least one time period of the plurality of time periods.

Gurusami disclosed such a link address for downstream (*see Figs. 5 and 9*).

Therefore, at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a link address for **downstream** further comprises an identifier for a plurality of time periods, the message being carried on the RF cable connection in the RF channel during at least one time period of the plurality of time periods, as taught by Gurusami with Laubach, so that appropriate data can be properly received by corresponding subscribers. The motivation for doing so would have been to provide efficient telephone and data services to CATV subscribers. Therefore, it would have been obvious to combine Gurusami and Laubach the invention as specified in the claim.

b) In Regarding to Claim 4: Laubach further disclosed wherein each time period of the plurality of time periods is relative to the start of a frame that is repetitively transmitted on the RF channel (*see Fig.16: each frame is repeated after 512 bits (from bit 0 to bit 511)*).

c) In Regarding to Claim 5: Laubach further disclosed wherein the link address further comprises an identifier that is matched with information in a header of the message before the message is forwarded to the at least one host (*see Fig.14: DSID*).

d) In Regarding to Claims 14-16: these claims are rejected for the same reasons as Claims 3-5, respectively because the claimed subject matters of the method in Claims 3-5 are the same as that of claims 14-16.

9. **Claims 7, 8, 10, 11, 18, 19, 21 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Laubach et al.** (US Patent No. **6,028,860**) hereinafter referred to as Laubach, and in view of **Carr et al.** (US Patent No. **5,608,446**) (provided by Applicant's **IDS #4**) hereinafter referred to as Carr.

a) **In Regarding to Claim 7: Laubach disclosed** all aspects of this claim as set forth in claim 1.

Laubach failed to explicitly disclose further comprising the steps of:
determining that the forwarding of information from the head end through the RF modem to the at least one host has terminated; and releasing the link address to the head end responsive to determining that the forwarding of information has terminated.

Carr disclosed such determining that the forwarding of information from the head end through the RF modem to the at least one host has terminated; and releasing the link address to the head end responsive to determining that the forwarding of information has terminated (*see col.11 lines 26-49; and col.20 line 66 – col.21 line 7*).

Therefore, at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such determining that the forwarding of information from the head end through the RF modem to the at least one host has terminated; and releasing the link address to the head end responsive to determining that the forwarding of information has terminated, as taught by Carr with Laubach, so that other link can be set up to transmit data packets to appropriate hosts without any delay. The motivation for doing so would have been to make Laubach's network more reliable. Therefore, it would have been obvious to combine Carr and Laubach the invention as specified in the claim.

b) **In Regarding to Claim 8: Laubach disclosed** all aspects of this claim as set forth in claims 1 and 7.

Laubach failed to explicitly disclose wherein the releasing step further comprises sending a DHCP (Dynamic Host Configuration Protocol) packet from the RF modem to the head end.

However, **Carr explicitly disclosed** a TCP/IP protocol that works with a service provider 10 (*see Fig.9; and col.16 line 52 – col.18 line 47: TCP/IP protocol*). Therefore, Carr inherently disclosed a DHCP packet since DHCP is a TCP/IP protocol that enables PCs or workstations to get IP addresses from a DHCP server.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such sending a DHCP packet from the RF modem to the head end, as taught by Carr with Laubach, so that a DHCP can allow a server to dynamically assign IP addresses to end users (PCs). The motivation for doing so would have been to provide IP addresses to clients (PCs) appropriately. Therefore, it would have been obvious to combine Carr and Laubach the invention as specified in the claim.

c) **In Regarding to Claim 10: Laubach disclosed** all aspects of this claim as set forth in claims 1 and 9.

Laubach failed to explicitly disclose wherein the bidirectional link is a PSTN (Public Switched Telephone Network) link that is different from the RF connection.

Carr clearly disclosed such a bi-directional link is a PSTN link that is different from the RF connection (*see Figs.1 and 4: 22*).

Therefore, at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a bi-directional link is a PSTN link that is different from the RF connection, as taught by Carr with Laubach, so that packets can be transmitted/received to/from communications hosts in a different communications medium if it is necessary. The motivation for doing so would have been to provide a back-up link to the CATV network of Laubach and make Laubach's network more reliable. Therefore, it would have been obvious to combine Carr and Laubach the invention as specified in the claim.

d) In Regarding to Claims 18 and 21: these claims are rejected for the same reasons as Claims 7 and 10 respectively because the claimed subject matters of the method in Claims 7 and 10 are the same as that of claims 18 and 21.

e) In Regarding to Claims 11, 19 and 22: these claims are rejected for the same reasons as Claim 8.

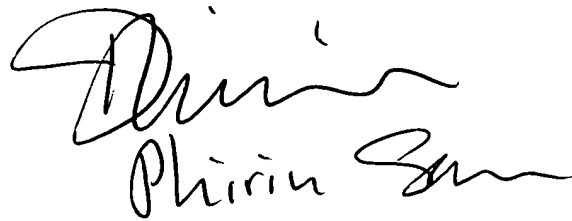
Examiner Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T Ton whose telephone number is 703-305-8956. The examiner can normally be reached on M-F: 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ATT
7/8/2004



Phirin Sam